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PATENT

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**  
**(Attorney Docket No. 13215ROUS01U)**

In the Patent of:  
Li, et al

Patent No.: 7,092,727

Date of Patent: 08/15/2006

Serial No.: 09/708,782

For: APPARATUS AND METHOD  
FOR SUPPORTING DIFFERENTIATED  
PACKET DATA SERVICES WITHIN  
A WIRELESS NETWORK

§ Group Art Unit: unknown

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§ Examiner: unknown

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<p align="center"><b>CERTIFICATE OF MAILING UNDER RULE 8</b></p> <p>I hereby certify that this correspondence is being deposited in the United States Mail with sufficient First Class Postage and is addressed to: Attention Certificate of Corrections Branch, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on <u>Oct. 5</u>, 2006.</p> <p>By: <u>Diane Hudson</u> Diane Hudson</p>
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**REQUEST FOR CERTIFICATE OF CORRECTION**

Attn: Certificate of Corrections Branch  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

**Certificate  
OCT 13 2006  
of Correction**

Dear Sir:

Patentee hereby requests the issuance of a certificate of correction for error on the part of the patent office. As shown on the attached first page of the publication which was retrieved from the United States Patent & Trademark Office official website, the complete and correct spelling of the 4th named inventor is "Mazda Salmanian", not "Mazda Salmanlan" which was printed on the certificate. Therefore, we respectfully request that the name be changed. No fees are required on our part.

Respectfully submitted,

Date: October 5, 2006

By: /Bruce E. Garlick, Reg. No. 36,520/  
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**OCT 16 2006**



US007092727B1

(12) **United States Patent**  
**Li et al.**

(10) **Patent No.:** **US 7,092,727 B1**  
(45) **Date of Patent:** **Aug. 15, 2006**

(54) **APPARATUS AND METHOD FOR  
SUPPORTING DIFFERENTIATED PACKET  
DATA SERVICES WITHIN A WIRELESS  
NETWORK**

(75) Inventors: **Xiao-Dong Li**, Ottawa (CA); **Patrick  
Lie Chin Cheong**, Nepean (CA);  
**Ashraf S. Mahmoud**, Nepean (CA);  
**Mazda Salmanian**, Kanata (CA)

(73) Assignee: **Nortel Networks Limited**, St. Laurent  
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(\*) Notice: Subject to any disclaimer, the term of this  
patent is extended or adjusted under 35  
U.S.C. 154(b) by 1196 days.

(21) Appl. No.: **09/708,782**

(22) Filed: **Nov. 8, 2000**

(51) Int. Cl.  
**H04Q 7/20** (2006.01)

(52) U.S. Cl. .... **455/466; 455/426.1; 455/426.2;  
455/560; 455/561; 370/329; 370/348; 370/352;  
370/395.1; 370/395.2; 370/400; 370/469;  
370/474; 370/395.5**

(58) **Field of Classification Search** .... **370/338,  
370/328, 329, 345, 348, 349, 351, 352, 395.1,  
370/395.2, 395.21, 400, 401, 419, 420, 463,  
370/465, 469, 466, 474, 395.5; 455/426.1,  
455/426.2, 560, 561, 466**

See application file for complete search history.

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*Primary Examiner*—Matthew Anderson

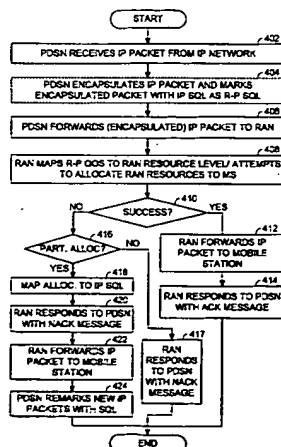
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(57) **ABSTRACT**

A system and method manages Radio Access Network (RAN) resources to service packet data transmissions at Service Quality Levels (SQL) commensurate with packet data network SQLs. A Packet Data Serving Node (PDSN) receives a data packet from a coupled packet data network. The data packet is directed toward a Mobile Station (MS) serviced by the RAN and includes a packet SQL indicator that indicates the level of service provided by the data packet network. A corresponding set of RAN resources is allocated to meet the packet SQL indicator. If the set of RAN resources cannot be allocated, the data packet SQL indicator is remarked accordingly. In another operation, the BSC receives a data packet from a MS serviced by the RAN. The data packet is intended for a coupled packet data network and includes a packet SQL indicator. The BSC first determines a set of allocated RAN resources that are servicing the transmission of the data packet to the packet data network. The BSC then maps the allocated set of RAN resources to a RAN service quality level indicator. If the data packet SQL indicator is incorrectly marked, it is remarked by the PDSN. These operation provide support for both specific SQL operations and differential SQL operations.

**46 Claims, 14 Drawing Sheets**



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APPLICATION NO.: 09/708,782

ISSUE DATE : 08/15/2006

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It is certified that an error appears or errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

(75) Inventors: Xiao-Dong Li, Ottawa (CA);  
Patrick Lie Chin Cheong, Nepean (CA);  
Ashraf S. Mahmoud, Nepean (CA);  
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